



Features

- ★ Standard DIN size (48mm x 96mm)
- ★ Display range -19999 to 99999
- ★ Large sensor excitation (sensor power supply)
12Vdc (100mA) or 24Vdc (50mA) when process signal input.
- ★ 2 setpoints and 4 setpoints type available.
- ★ D/A analog output (high response time).
- ★ IP66 rating (Front bezel).
- ★ CE approved

Ordering code

WPM - 1 - [] [] - [] [] [] - [] [] [] []

Code	Power supply	Code	Display	Code	Input range	Code	Output	Code	Comparative output	Code	Test report
1	100 to 240Vac	1	Single	1	DC voltage (11 to 14 range)	0	Display only	0	None	0	None
		2	Multi	2	DC high voltage (15 range)	1	Analog output	1	2 setpoints Relay output	1	With Test report
				3	DC current (21 to 24 range)			2	4 setpoints Relay output		
				4	DC large current (25 range)			3	2 setpoints Photocoupler output		
				B	Process signal			4	4 setpoints Photocoupler output		

Input Specifications

◆ DC voltage Input range code **1 2**

Range	Measurement range	Auto range	Display Range (Scaling)	Resolution	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
11	±199.99mV	Not available	Offset : -19999 to 99999 Full scale : -19999 to 99999 Resolution : ±19999	10µV	Approx. 10M Ω	±250V ±600V	±(0.1% of FS +1 digit)
12	±1.9999V	Available		100µV			
13	±19.999V			1mV			
14	±199.99V			10mV			
15	±600.0V	Not available		100mV			

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

◆ DC current Input range code **3 4**

Range	Measurement range	Display Range (Scaling)	Resolution	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
21	±199.99µA	Offset : -19999 to 99999 Full scale : -19999 to 99999 Resolution : ±19999	10nA	Approx. 1KΩ	±10mA	±(0.1% of FS +1 digit)
22	±1.9999mA		100nA	Approx. 100Ω		
23	±19.999mA		1µA	Approx. 10Ω		
24	±199.99mA		10µA	Approx. 1Ω	±500mA	
25	±1.9999A		100µA	Approx. 0.1Ω	±3A	

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

◆ Process signal Input range code **B**

Range	Measurement range	Display Range (Scaling)	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
1V	1 to 5V	Offset : -19999 to 99999 Full scale : -19999 to 99999 Resolution : ±19999	Approx. 1MΩ	±100V	±(0.1% of FS +1 digit)
2V	±5V				
3V	±10V				
2A	4 to 20mA		Approx. 10Ω	±50mA	
3A	±20mA				

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

Specifications

◆ Common specifications

Input Configuration	Single ended
A/D conversion	$\Delta\Sigma$ conversion
Sampling rate	Max. 250 times per second
Over range display	When input exceeds the maximum display, 'ovEr' or '-ovEr'
Decimal point	Able to set to any digit
Display	Single display main display: red or green 7 segment LED (height 18mm) Multi display main display: red or green 7 segment LED (height 14.9mm) sub display: white 7 segment LED (height 9mm)
Polarity	'-' is displayed automatically at negative polarity
Display range	-19999 to 99999 (5 digits)
Zero display	Leading zero suppression
External control	Select 4 external control and set parameter 1. Pattern select 2. Sample hold 3. Peak hold 4. Digital zero 5. Relay reset
Operating temperature	-5 to 50°C
Operating relative humidity	35 to 85% (non-condensing)
Storage temperature/humidity	-10 to 70°C 60%RH or less
Power supply	100 to 240Vac $\pm 10\%$ 50/60Hz
Sensor excitation (Sensor power supply)	12Vdc $\pm 10\%$ 100mA, 24Vdc $\pm 10\%$ 50mA selectable (when process signal input)
Power consumption	12VA max. at 100Vac 15VA max. at 240Vac
Dimensions	96mm(W) x 48mm(H) x 85.9mm(D) DIN size (with comparative function : 99.7mm(D))
Weight	Approx. 250g
Dielectric strength	AC power supply 2000VAC per 1 min. : Power supply terminal - input terminal / external control / analog output terminal 1500VAC per 1 min. : Power supply terminal - comparative output terminal
Insulation resistance	500Vdc, 100M Ω or more on the above terminals
Vibration strength	10 to 55Hz 0.15mm X,Y,Z 30 min.
Front protection	IP66 rating (Front bezel)
Installation location	Indoors only
Applicable EN standard	EN61326-1, EN61010-1
Case material	Polycarbonate

◆ Comparative output specifications

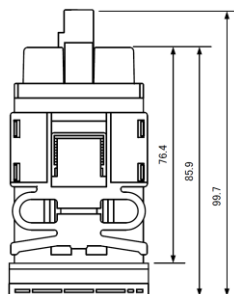
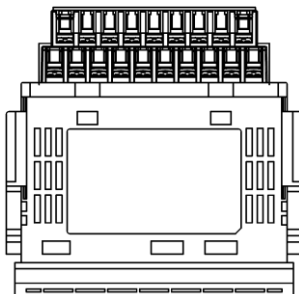
Setting range	-19999 to 99999	
Hysteresis	1 to 9999 digit for each setpoints	
Setting condition	HH > HI > LO > LL	
Comparative condition	Comparative condition	Result
	Display value > HH > HI	AL1(HH), AL2(HI)
	HH \geq Display value > HI	AL2(HI)
	HI \geq Display value \geq LO	AL3(GO)
	LO > Display value \geq LL	AL4(LO)
	LO > LL > Display value	AL4(LO), AL5(LL)
Comparative relay output	Contact rating : 125Vac 0.3A (resistance load) 30Vdc 1A (resistance load) Number of contacts : 5 relay contacts Minimum applicable load : 10 μ A 10mVdc Mechanical life : 50,000,000 times or more Electrical life : 100,000 times or more	
Photocoupler output (NPN open collector output)	Rated output : Sink current 50mA Max. Applied voltage : 30V Max Output saturation voltage : 1.2V or less when 50mA Number of outputs : Photocoupler output (NPN) x 5	

◆ Analog output specifications

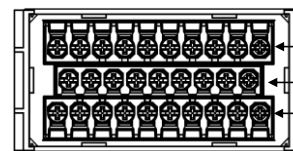
Conversion	D/A			
Resolution	15bit			
Scaling	Digital scaling			
Response time	10ms or less (0 to 90%)			
	Analog output	Load resistance	Accuracy	Ripple
	0 to 2V	10k Ω or more	$\pm 0.1\%$ of FS)	± 50 mVp-p
	0 to 10V			
	-10 to +10V	550 Ω or more	$\pm 0.1\%$ of FS)	± 25 mVp-p
	1 to 5V			
	0 to 20mA			
4 to 20mA				

Note : 'Ripple' is when load resistance is 250 Ω and current output is 20mA.

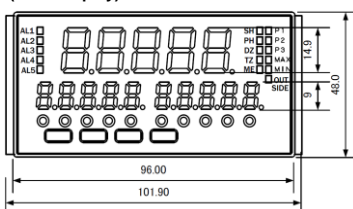
Dimensions



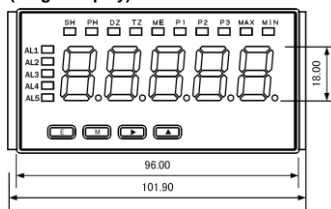
(Terminal connections)



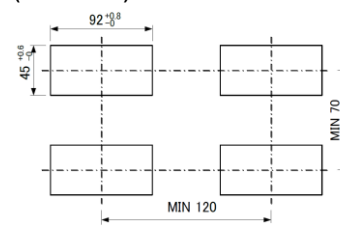
(Multi display)



(Single display)



(Panel cutout)



(Unit : mm)

* Specification is subject to change without notice